

FORM HDP-1449 (Based on Form HTM-1449)

## PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Sheet 1 of 3

ATTORNEY DOCKET No.	SERIAL NO.		
	09/114,665		
6550-000013			
APPLICANT			
Thomas R. Bieler et al.	_		
FILING DATE	GROUP		
July 13 1008	17/12		

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.	2	3,481,795	12/1969	Lane	136/237	100 -
2.	12	4,248,905	2/1981	Harvey	427/11	53 53
3.	1	4,358,884	11/1982	Harvey et al.	29/402 18	P 2
4.	a	4,506,822	3/1985	Hammersand et al.	228/200	Φ
5.	a	5,066,544	11/1991	Betrabet et al.	428/6/14	35
6.	8	5,094,700	3/1992	Sekhar	148/538	F.
7.	£	5,344,607	9/1994	Gonya et al.	420/562	4
8.	a	5,429,689	7/1995	Shangguan et al.	148/400	
9.	12	5,527,628	6/1996	Anderson et al.	428/647	

FOREIGN PATENT DOCUMENTS							
						Trans	lation
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Yes	No
1.							

	OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)						
Ref. Desig.	Examiner's Initials						
1.	Œ	Attarwala, A.I. et al., "Confirmation of Creep and Fatigue Damage in Pb/Sn Solder Joints," <i>J. Electron. Packag.</i> 114:109-111 (1992)					
2.	12	Betrabet, H.S. et al., "Processing Dispersion-Strengthened Sn-Pb Solders To Achieve Microstructural Refinement And Stability," <i>Script Metall.</i> 25:2323-2328 (1991)					

Examiner:	Sikyin Ze	Date Considered: 11/22/99



FORM HDP-1449 (Based on Form PTO-1449)

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Sheet 2 of 3

ATTORNEY DOCKET No. SERIAL NO. 09/114,665

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Thomas R. Bieler et al.

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	OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages செட்ட)						
Ref. Desig.	Examiner's Initials	NED NED I					
3.	a	Betrabet, H.S. et al., "Towards Increased Fatigue Resistance In Sn-Pb Solders By Dispersion Strengthening," <i>Proc. Conf. NEPCON.</i> , West Anaheim, CA, pp. 1276-1277 (1992)					
4.	1	Clough, R.B. et al., "Preparation And Properties Of Reflowed Paste And Bulk Composite Solder," <i>Proc. Conf. NEPCON.</i> , West Anaheim, CA, pp. 1256-1265 (1992)					
5.	1	Frear, D.R. et al., "Thermal Fatigue In Solder Joints," JOM, pgs. 18-22 (June, 1988)					
6.	a	Ho, C.T. et al., "Carbon fiber reinforced tin-lead alloy as a low thermal expansion solder preform," <i>J. Mater. Res.</i> 5(6):1266-1270 (1990)					
7.	E	n, S., "Solder Materials Issues In High-Density Interconnection And Packaging," <i>Final rogram ASM-TMS Materials Week '96</i> , ASM International and The Minerals, Metals & laterials Society, Cincinnati, Ohio, pp. 116 (1996)					
8.	63	Kuo, C.G. et al., "Fatigue Deformation Of In-Situ Composite Solders," 1st Int'l. Conf. Microstructures and Mechanical Properties of Aging Materials, ed. P.K. Liaw, R. Viswanathm, K.L. Murty, E.P. Simonen and D.R. Frear, The Minerals Metals & Materials Society, TMS, Warrendale, PA, pp. 417-423 (1993)					
9.	2	Kuo, C.G. et al., "Tensile And Creep Properties Of In-Situ Composite Solders," 1st Int'l. Conf. Microstructures and Mechanical Properties of Aging Materials, ed. P.K. Liaw, R. Viswanathm, K.L. Murty, E.P. Simonen and D.R. Frear, The Minerals Metals & Materials Society, TMS, Warrendale, PA, pp. 409-415 (1993)					
10.	~	Lau, J.H. et al., "Solder Joint Fatigue In Surface Mount Technology: State of the Art," Solid State Tech. pp. 91-104 (1985)					
11.	a	Marshall, J.L. et al., "Composite Solders," IEEE Trans. Comp. Hybrids Manuf. Tech. 14(4):698-702 (1991)					
12.	B	Marshall, J.L. et al., "Microcharacterization Of Composite Solders," <i>Proc. Conf. NEPCON.</i> , West Anaheim, CA, pp. 1278-1283 (1992)					
13.	B	McCormack, M. et al., "The Design and Properties of New, Pb-Free Solder Alloys," <i>Proc. IEEE/CPMT Int'l Electronics Manufacturing Technology Symp.</i> pp. 7-14 (1994)					

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Examiner:	Siktin Zi	Date Considered:	11/22/33
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	OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages etc.)					
Ref. Desig.	Examiner's Initials	OF IV				
14.	O.	McCormack, M. et al., "Enhanced Solder Alloy Performance by Magnetic Dispersions," IEEE Trans. Comp. Hybrids Manuf. TechPart A 17(3):452-457 (1994)				
15.	2	Pinizzotto, R.F. et al., "Microstructural Development In Composite Solders Caused By Long Time, High Temperature Annealing," <i>Proc. Conf. NEPCON.</i> , West Anaheim, CA, pp. 1284-1298 (1992)				
16.	a	Sastry, S.M.L., et al., "Microstructures And Mechanical Properties Of In-Situ Composite Solders," <i>Proc. Conf. NEPCON</i> , West Anaheim, CA, pp. 1266-1275 (1992)				
17.	Ci	Shangguan, D. et al., "Evaluation of Lead-Free Eutectic Sn-Ag Solder For Automotive Electronics Packaging Applications," <i>Proc. IEEE/CPMT Int'l Electronics Manufacturing Technology Symp.</i> , pp. 25-37 (1994)				
18.	~	Shine, M.C. et al., "Fatigue of Solder Joints in Surface Mount Devices," ASTM STP 942:588-610 (1988)				
19.	3	Tien, J.K. et al., "Creep-Fatigue Interactions in Solders," <i>IEEE Trans. Comp. Hybrids Manuf. Tech.</i> 12(4):502-505 (1989)				
20.	13	Wasynczuk, J.A. et al., "Shear Creep Of Cu <sub>6</sub> Sn <sub>5</sub> /Sn-Pb Eutectic Composites," <i>Proc. Conf. NEPCON.</i> , West Anaheim, CA, pp. 1245-1255 (1992)				
21.	3	Weinbel, R.C. et al., "Creep-fatigue interaction in eutectic lead-tin solder alloy," <i>J. Mater. Sci.</i> 22:3901-3906 (1987)				

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